

DERWENT-ACC-NO: 1987-223347  
DERWENT-WEEK: 198732  
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TITLE: Regulation of synchronous brushless alternator - using  
auxiliary supply  
to main excitation winding by auxiliary windings on stator

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PRIORITY-DATA: 1985FR-0018872 (December 19, 1985)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	
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FR 2592243 A	June 26, 1987	N/A	012
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DE 3680786 G	September 12, 1991	N/A	000
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EP 233425 A	August 26, 1987	F	000
N/A			
EP 233425 B	August 7, 1991	N/A	000
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ES 2000097 A	December 1, 1987	N/A	000
N/A			
ES 2000097 B	March 1, 1992	N/A	000
N/A			

DESIGNATED-STATES: DE ES FR GB IT DE ES FR GB IT

CITED-DOCUMENTS: DE 1952068; DE 2353832 ; GB 2071430 ; US 3132296  
; 1.Jnl.Ref

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
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FR 2592243A	N/A	1985FR-0018872
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INT-CL\_(IPC): H02K019/38; H02P009/36 ; H02P009/38

ABSTRACTED-PUB-NO: EP 233425B

BASIC-ABSTRACT: The method of regulation uses an electric supply

to the fixed  
excitation winding (1) derived from auxiliary windings (7,8)  
housed in the  
stator recovering respectively the fundamental voltage cycle and  
the third  
harmonic voltage, and regulates the current traversing the  
excitation coil in  
response to the normal conditions of operation of an alternator.

The terminal voltage and the voltage at the auxiliary winding are  
monitored and  
compared to set values by an electronic circuit to adjust the  
machine  
parameters to give the required short circuit impedance, reactive  
power, or  
optimal parallel operation.

USE/ADVANTAGE - Provides effective isolation for circuit  
regulating voltage,  
short circuit current, reactive power, and parallel operation  
without need of  
transformer.

ABSTRACTED-PUB-NO: FR 2592243A

EQUIVALENT-ABSTRACTS: A method of regulating a brushless  
synchronous alternator  
comprising a rotating exciter (2) having a stationary exciting  
field (1), more  
particularly for the regulation of the voltage, short circuit  
current and  
reactive power distribution in the case of parallel operation,  
the stationary  
exciting field (1) being energised by a first auxiliary winding  
(8) received in  
the alternator stator, the first winding (8) receiving the  
third-harmonic  
voltage of the alternator, the current which flows through the  
exciting field  
(1) being controlled in dependence upon the alternator output  
voltage,  
characterised in that the stationary exciting field (1) is also  
energised by a  
second auxiliary winding (7) which is received in the alternator  
stator and  
which receives the fundamental voltage of the alternator, and the  
current  
flowing through the stationary exciting field (1) is controlled  
in dependence  
upon the fundamental voltage, the said third-harmonic voltage and  
the  
alternator output voltage to selectively regulate the

last-mentioned voltage,  
the off-load voltage, the short circuit current and the droop of  
the  
alternator. (9pp)

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS:  
REGULATE SYNCHRONOUS BRUSH ALTERNATOR AUXILIARY SUPPLY MAIN  
EXCITATION WIND  
AUXILIARY WIND STATOR

DERWENT-CLASS: X13

EPI-CODES: X13-G02A;

SECONDARY-ACC-NO:  
Non-CPI Secondary Accession Numbers: N1987-167022